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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,091	08/13/2007	Joseph J. Fitzgerald	200406552-4	4743

22879 7590 03/09/2010  
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EXAMINER
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SURYAWANSHI, SURESH

ART UNIT	PAPER NUMBER
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2115

NOTIFICATION DATE	DELIVERY MODE
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03/09/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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**DETAILED ACTION**

1. Claims 1-17 are presented for examination.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 4-6 and 8-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over David et al (US Patent 5,948,101<sup>1</sup>; hereinafter David) in view of Hughes et al (US Patent 5,109,484; hereinafter Hughes).

4. Claims 1-2, 4-6 and 8-16 are rejected under 35 U.S.C. 102(b) as being anticipated by David et al (US Patent 5,948,101; hereinafter David).

5. As per claim 1, David discloses a method for provisioning a target computer with an operating system, the method comprising the steps of:

booting the target computer in a pre-operating system environment [col. 4, lines 32-37; booting begins];

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collecting configuration information for the target computer [col. 4, 32-67; the program reads information relevant to the boot process from OMC 37; more specifically, head unit serial number 41 and hardware information from OMC are read];

transmitting the configuration information to a predetermined server [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12; the program reads information relevant to the boot process from OMC 37; more specifically, head unit serial number 41 and hardware information from OMC are read and sent to OMCLBSVR];

searching a database in the server for a pre-existing operating system image corresponding to the configuration information from the target computer [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12; a database is searched];

if a corresponding operating system image is found, transferring the pre-existing operating system image to the target computer [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12; the boot image is transmitted to OMC]; and

installing the pre-existing operating system image on the target computer [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12; OMC boots therefrom].

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<sup>1</sup> Prior art cited by examiner in the prior office action.

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David discloses collecting configuration information of the target computer by utilizing a small operating system (limited functionality) that is downloaded to the target computer.

However, Hughes clearly discloses collecting configuration information of a target computer can be done without downloading the small operating system [col. 2, line 36 -- col. 3, line 19; col. 3, lines 47-61]. Hughes disclose a small agent program (similar to applicant disclosed client agent) downloaded to the target computer from a controller (server). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the cited references as both are directed to boot a target computer system having no operating system.

Moreover, clearly Hughes disclosed a small agent program advantageously improve the disclosed invention by David because there will be no need to download a small operating system. Thus, only a small agent program will do the job of collecting all the necessary information prior to transmitting any operating system image to the target computer from a predetermined server.

6. As per claim 6, David discloses a system for provisioning an operating system on target computers over a network, the system comprising:

at least one target computer configured to respond to initialization by requesting a network address for communication over the network, respond to receiving the network address by requesting a boot file over the network, respond to receiving the boot file by executing the boot file in a pre-operating system environment to create a client agent, where the client agent is

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configured to perform an inventory of the target computer to collect configuration data and transmit the configuration data in a request for an operating system image to a predetermined server [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12];

the client agent being further configured to receive an operating system image and, responsive thereto, install the operating system image on the target computer and execute the operating system [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12];

a network address server configured to monitor the network for the request for a network address and, responsive thereto, allocate the network address for communication over the network and return it to the requesting device [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12];

a boot server configured to monitor the network for the request for the boot file and, responsive thereto, transmit the boot file to the requester [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12]; and

an operating system management server configured to monitor the network for the request for an operating system image, receive the request along with the configuration data, use the configuration data to search for a corresponding operating system image and, if the corresponding operating system image is found, transmit the corresponding operating system image to the target computer [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12].

David discloses collecting configuration information of the target computer by utilizing a small operating system (limited functionality) that is downloaded to the target computer.

However, Hughes clearly discloses collecting configuration information of a target computer can be done without downloading the small operating system [col. 2, line 36 -- col. 3, line 19; col. 3, lines 47-61]. Hughes disclose a small agent program (similar to applicant disclosed client agent) downloaded to the target computer from a controller (server). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the cited references as both are directed to boot a target computer system having no operating system.

Moreover, clearly Hughes disclosed a small agent program advantageously improve the disclosed invention by David because there will be no need to download a small operating system. Thus, only a small agent program will do the job of collecting all the necessary information prior to transmitting any operating system image to the target computer from a predetermined server.

7. As per claim 12, David discloses method for determining an operating system for target computers over a network the method comprising the steps of:

booting a target computer in a pre-operating system environment [col. 4, lines 32-37; booting begins];

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collecting policy criteria data for the target computer [col. 4, 32-67; the program reads information relevant to the boot process from OMC 37; more specifically, head unit serial number 41 and hardware information from OMC are read];

transmitting the policy criteria data to an operating system management server [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12; the program reads information relevant to the boot process from OMC 37; more specifically, head unit serial number 41 and hardware information from OMC are read and sent to OMCLBSVR];

providing policy data defining a relationship between specific policy criteria data instances and operating system image instances [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12; a database is searched];

resolving an appropriate operating system image for the target computer based on the policy criteria data from the target computer and the policy information [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12; the boot image is transmitted to OMC]; and

transmitting to the target computer an operating system object identifier corresponding to the resolved operating system image [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12; OMC boots therefrom].



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David discloses collecting configuration information of the target computer by utilizing a small operating system (limited functionality) that is downloaded to the target computer.

However, Hughes clearly discloses collecting configuration information of a target computer can be done without downloading the small operating system [col. 2, line 36 -- col. 3, line 19; col. 3, lines 47-61]. Hughes disclose a small agent program (similar to applicant disclosed client agent) downloaded to the target computer from a controller (server). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the cited references as both are directed to boot a target computer system having no operating system.

Moreover, clearly Hughes disclosed a small agent program advantageously improve the disclosed invention by David because there will be no need to download a small operating system. Thus, only a small agent program will do the job of collecting all the necessary information prior to transmitting any operating system image to the target computer from a predetermined server.

8. As per claim 16, David discloses a system for installing an operating system on a target computer using a network, the system comprising:

means for collecting configuration information for the target computer in a pre-operating system environment [col. 4, lines 32-37; booting begins];

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means for requesting download of an operating system image that corresponds to the configuration information for the target computer [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12; boot request];

means for identifying an operating system image that corresponds to the configuration information from the target computer [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12; database is searched for the corresponding image];

means for downloading an operating system image that corresponds to the configuration information from the target computer if the corresponding operating system image is found [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12; the image is transferred to OMC]; and

means for installing and executing the corresponding operating system image on the target computer [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12; OMC boots therefrom].

David discloses collecting configuration information of the target computer by utilizing a small operating system (limited functionality) that is downloaded to the target computer. However, Hughes clearly discloses collecting configuration information of a target computer can be done without downloading the small operating system [col. 2, line 36 -- col. 3, line 19; col. 3, lines 47-61]. Hughes disclose a small agent program (similar to applicant disclosed client agent) downloaded to the target computer from a controller (server). Therefore, it would have been

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obvious to one of ordinary skill in the art at the time the invention was made to combine the cited references as both are directed to boot a target computer system having no operating system.

Moreover, clearly Hughes disclosed a small agent program advantageously improve the disclosed invention by David because there will be no need to download a small operating system. Thus, only a small agent program will do the job of collecting all the necessary information prior to transmitting any operating system image to the target computer from a predetermined server.

9. As per claim 2, David discloses that if no corresponding pre-existing operating system image is found, constructing an operating system image for the target computer using the configuration information [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12]; transferring the constructed operating system image to the target computer [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12]; installing the constructed operating system image on the target computer [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12]; and storing the constructed operating system image and the configuration data in the database in the server [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12].

10. As per claims 4, 10 and 15, David discloses the configuration data includes at least one of a microprocessor identifier, a blade slot location, a memory size, a storage disk size, a manufacturer identifier, a model identifier, a network location identifier, a role identifier, a

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network interface card identifier, a bus identifier, a user identifier, electronically inscribed identification information, and a storage device identifier [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12].

11. As per claims 5 and 11, David discloses that the configuration information includes policy criteria data corresponding to the target computer [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12].

12. As per claim 8, David discloses that the operating system management server is further configured, when no corresponding operating system image is found, to construct an operating system image based on the configuration data from the target computer and transmit the constructed operating system image to the target computer [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12; inherent to the server provided the operating system image].

13. As per claim 9, David discloses that the client agent on the target computer is further configured to collect user input for inclusion in the configuration data [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12].

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14. As per claim 13, David discloses comprising the steps of: receiving the operating system object identifier corresponding to the resolved operating system image in the target computer [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12]; requesting download of the operating system image file corresponding to the operating system object identifier [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12]; and installing the operating system image and executing the operating system responsive to receiving the operating system image file in the target computer [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12].

15. As per claim 14, David discloses comprising the steps of: receiving the operating system object identifier corresponding to the resolved operating system image in the target computer [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12]; checking whether the operating system object identifier corresponds to an operating system currently installed on the target computer [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12]; if the operating system object identifier does not correspond to the operating system currently installed on the target computer, requesting download of the operating system image file corresponding to the operating system object identifier, receiving the operating system image file in the target computer, installing the operating system image, and executing the operating system [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12]; and if the operating system object identifier does correspond to the operating system currently installed on the target computer, executing the operating system currently installed on the target computer [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12].

16. Claims 3, 7 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over David et al (US Patent 5,948,101; hereinafter David), Hughes et al (US Patent 5,109,484; hereinafter Hughes) in view of Burkhardt et al (US Patent 6,993,642; hereinafter Burkhardt).

17. As per claim 17, David discloses a method for constructing a set of operating system images for a target computer, the method comprising the steps of:

booting the target computer in a pre-operating system environment [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12];

collecting configuration information for the target computer [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12];

transmitting the configuration information to a predetermined server [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12];

searching a database in the server for a set of pre-existing operating system images corresponding to the configuration information from the target computer [col. 4, lines 32-67; col. 5, lines 15-23; col. 6, lines 6-12].

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David discloses collecting configuration information of the target computer by utilizing a small operating system (limited functionality) that is downloaded to the target computer.

However, Hughes clearly discloses collecting configuration information of a target computer can be done without downloading the small operating system [col. 2, line 36 -- col. 3, line 19; col. 3, lines 47-61]. Hughes disclose a small agent program (similar to applicant disclosed client agent) downloaded to the target computer from a controller (server). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the cited references as both are directed to boot a target computer system having no operating system.

Moreover, clearly Hughes disclosed a small agent program advantageously improve the disclosed invention by David because there will be no need to download a small operating system. Thus, only a small agent program will do the job of collecting all the necessary information prior to transmitting any operating system image to the target computer from a predetermined server.

David and Hughes do not disclose about running install script. However, Burkhardt clearly discloses how one can utilize a script to install an operating system on a computer [col. 2, lines 41-47; col. 4, lines 22-29, 65-67; col. 5, lines 18-22; col. 12, lines 26-57; col. 15, lines 22-45; col. 16, lines 54-59; col. 17, lines 3-18]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the cited references as they all are directed for installing an operating system on a target computer.

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18. As per claims 3 and 7, David and Hughes disclose the invention substantially. David and Hughes do not disclose about running install script. However, Burkhardt clearly discloses how one can utilize a script to install an operating system on a computer [col. 2, lines 41-47; col. 4, lines 22-29, 65-67; col. 5, lines 18-22; col. 12, lines 26-57; col. 15, lines 22-45; col. 16, lines 54-59; col. 17, lines 3-18]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the cited references as they all are directed for installing an operating system on a target computer.

### *Conclusion*

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.



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Any inquiry concerning this communication or earlier communications from the examiner should be directed to SURESH K. SURYAWANSHI whose telephone number is (571)272-3668. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Suresh K Suryawanshi/  
Primary Examiner, Art Unit 2115